(No Model.)

M. J. O'RIELLY.

GAS BURNER.

No. 600,166. Patented Mar. 8, 1898.

Fig. 1.

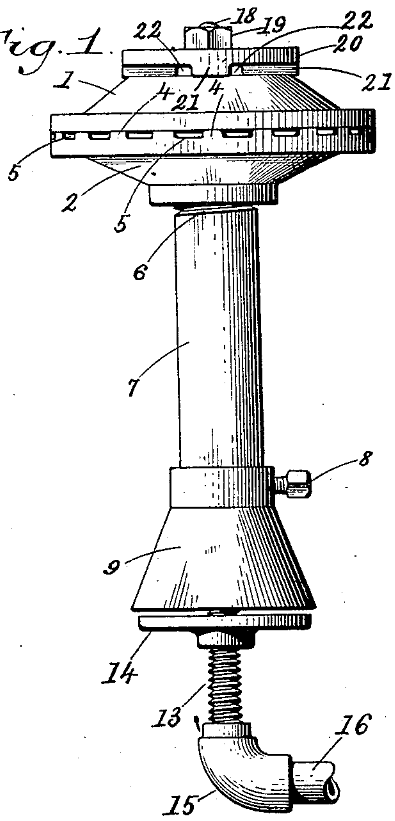


Fig. 2.

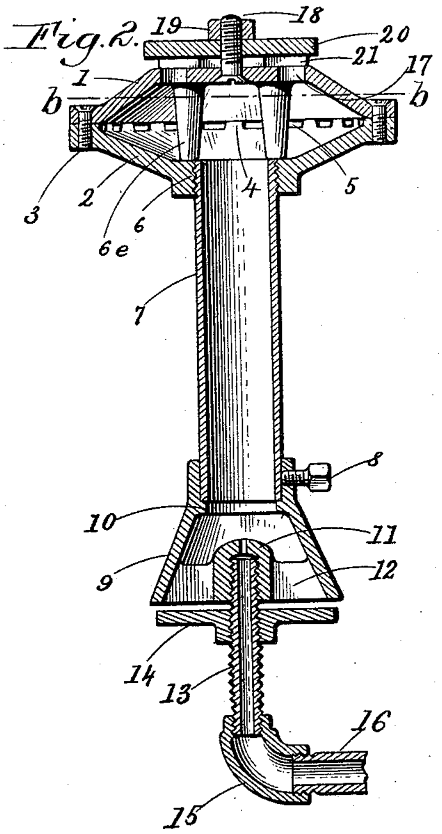


Fig. 3

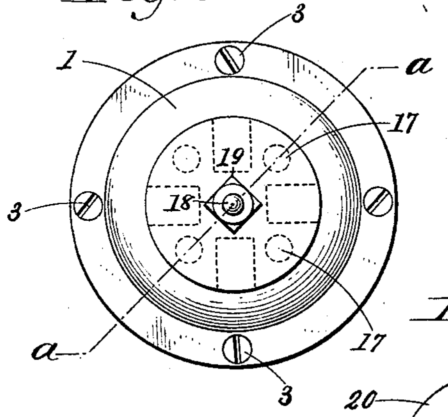


Fig. 4.

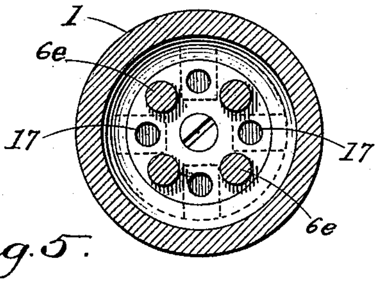
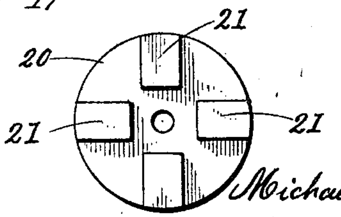


Fig. 5.



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UNITED STATES PATENT OFFICE.

MICHAEL J. O'RIELLY, OF BUFFALO, NEW YORK.

GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 600,166, dated March 8, 1898.

Application filed December 23, 1895. Serial No. 572,992. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL J. O'RIELLY, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Gas-Burners, of which the following is a specification.

My invention relates to a new and useful gas-burner for heating purposes and will be fully and clearly hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 represents a side elevation of the burner complete. Fig. 2 is a vertical section on or about line *a a*, Fig. 3. Fig. 3 represents a top plan view of the burner. Fig. 4 is a horizontal section on or about line *b b*, Fig. 2, showing an inverted or inside view of the upper part of the burner. Fig. 5 represents an inverted plan view of the auxiliary adjusting top.

When using a gas-burner for heating purposes, it is often of great advantage to have some means for producing a gas-flame at the top of the burner in addition to the ordinary flame around the periphery thereof.

The object of my invention is to provide a suitable means consisting of an easily-adjustable supplementary cover for either admitting or shutting off the gas at the top of the burner, as will appear farther on.

Referring in detail to the drawings, 1 represents the top of the burner, and 2 the lower part, the two parts being secured together by screws 3. The lower portion 2 is provided on its upper face, extending around near the peripheral edge, with a series of slightly upward extending portions 4, (see Fig. 1,) so that when the top is put on a series of gas-openings 5 is left between them. To the part 2 is secured in the usual way by a screw portion 6 a tube or pipe 7, to the lower end of which is secured by a set-screw 8 the air-mixer 9. This air-mixer 9 is provided with an inward-extending flange 10, which prevents the tube 7 from being entered too far into the air-mixer and thereby interfering with its proper action. A series of supporting-fingers 6^e are formed integral with and project downward from the interior of the upper portion 1. (See Figs. 2 and 4.) The object of these fingers is to strengthen the said upper burner portion and also to prevent the heat from warping the same. It will be noticed by referring to Fig. 2 that when the two burner portions are fitted together as therein shown the said fingers act as a stop to limit the entrance of the upper end of the tube 7 into the screw portion 6. These fingers are imperatively necessary, as without them the upper burner portion is, owing especially to the holes 17, very liable to warp, and that would utterly destroy the value of the burner, as the portions 21 would not in that case entirely cover the said holes 17, and the gas would in consequence thereof escape.

It will be observed by referring to Fig. 4 that the fingers 6^e are each located between two of the holes 17, and that the portions 21, when arranged between the holes, as shown by dotted lines in said Fig. 4, serve to protect and support the top faces of the burner portions surrounding the said holes and thus sustain the said burner portions between the said fingers 6^e and the portions 21, thereby absolutely obviating all tendency to warp.

The inner lower portion of the air-mixer is provided with the usual central gas-jet portion 11, secured thereto by the radial connecting-arms 12, (see Fig. 2,) in which is secured a gas-tube 13, having an outside screw-thread on which is mounted so as to be easily turned thereon the ordinary air-adjusting disk 14.

15 and 16 represent the usual elbow and pipe, connecting with any suitable gas-supply.

In the top of the burner portion 1 is a series of holes 17, communicating with the interior of the burner. (See Figs. 2 and 4, also Fig. 3, where these holes are shown in dotted lines.)

On the top of the burner, over the holes 17, is secured by a screw 18, passing through it, and a nut 19, centrally located or substantially so, a supplementary top or cover 20, provided with a series of portions 21, extending slightly outward from its inner or lower face. I have shown four of these portions 21 to correspond with the number of holes 17; but the number of holes 17 and portions 21 may be more or less than that number. This construction leaves an equal number of gas-openings 22. (See Fig. 1.)

From the above-described construction it will be seen that the supplementary top 20 may be adjusted by being turned on its pivotal pin or screw 18, so that the parts 21 will cover the holes 17, and thus shut off the gas, or be turned off from said holes, so as to open a passage for the gas to pass out and through the openings 22, thus providing the means for forming a top flame at the top of the burner when required, or, if desired, the cover may be reversed, bringing the top side down and thereby covering and closing the holes permanently. This operation can be easily effected by removing the nut 19, turning the top 20 over, and then readjusting the screw-nut 19.

I claim as my invention—

1. A gas-burner, provided with a series of holes arranged around a central opening in the top portion thereof, forming a supplementary burner, in combination with a supplementary adjustable top cover having a central opening and a corresponding series of depending portions arranged around said opening, on one face thereof, a screw-bolt passing through the central openings in the top burner portion and the supplementary cover, and a nut fitting the screw portion of said bolt for securing said cover to said burner, whereby the cover may be turned to cover or uncover the holes in the burner-top.

2. In a gas-burner, the combination with the main burner, provided in its top portion with a series of holes or supplementary gas-orifices of an adjustable cover pivoted to the burner-top so as to turn easily thereon, and provided with a series of portions depending from its lower face and adapted to seal the holes in the burner-top when brought over the same by rotation of the cover, the depending portions forming between themselves, the cover, and the burner-top, passages adapted to allow the gas to flow freely from the holes in the burner-top when the said cover is turned to remove the depending portions from their sealing position above the holes, as set forth.

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